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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,311	04/13/2004	Che-Hsiung Hsu	UC0423USNA	4769

23906 7590 08/22/2008

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EXAMINER	
YAMNITZKY, MARIE ROSE	
ART UNIT	**PAPER NUMBER**
1794	

NOTIFICATION DATE	DELIVERY MODE
08/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary	Application No.	Applicant(s)	
	10/823,311	HSU ET AL.	
	Examiner	Art Unit	
	Marie R. Yamnitzky	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 18-22* is/are pending in the application.

4a) Of the above claim(s) *13-15 and 19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,18,20 and 22* is/are rejected.

7)☒ Claim(s) *21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This Office action is in response to applicant's amendment filed May 19, 2008, which amends claims 1-12, 18, 20 and 21, cancels claims 16 and 17, and adds claim 22.

Claims 1-15 and 18-22 are pending.

2. The claims remain subject to an election of species requirement. Claims 1-12, 18 and 20-22 read on the elected species, with claims 3-5 and 9-12 being interpreted as further defining one of several materials that may be used, but not as requiring the material that is further defined.

3. Claims 13-15 and 19 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 19, 2006.

4. The rejection under 35 U.S.C. 102(b) based on Ohtani et al. (US 4,869,979) as set forth in the previous Office action (notification date of December 17, 2007) is overcome by claim amendment.

The rejection under 35 U.S.C. 102(e) based on Kokonaski et al. (US 2004/0217877 A1) as set forth in the previous Office action is overcome by claim amendment.

The rejection under 35 U.S.C. 102(b) based on Gryko et al. (US 6,324,091 B1) as set forth in the previous Office action is overcome by claim amendment.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-12, 18, 20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al. (US 2004/0102577 A1).

The applied reference has a common inventor with the instant application, but a different inventive entity. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

See the whole publication. In particular, see paragraphs [0002]-[0006], [0025]-[0048], [0065]-[0068], [0090], [0124]-[0125], [0130]-[0131], [0139]-[0143] and claims 39-42.

Examples 11 and 12 describe a light-emitting diode comprising a two-layered buffer in which a layer consisting of a doped conductive polymer (the layer of CH8000) is in physical contact with a layer which comprises a colloid-forming polymeric acid (the layer of PEDT/Nafion®). The two layers of the two-layered buffer have a different composition from each other. The light-emitting diodes of Examples 11 and 12 meet the limitations of the

electronic device of present claims 1-12, 18 and 20, and meet the limitations of an organic light-emitting diode as claimed in present claim 22.

7. Applicant's arguments filed May 19, 2008 have been fully considered but they are not persuasive with respect to the Hsu et al. reference.

Applicant argues that the two buffer layers disclosed in Hsu "do not address the same claim elements, in the same order" as the present claims. Applicant argues that there is no doped conductive polymer in Hsu, and that the buffer layer of the present claims comprises two layers having different compositions. Applicant argues that the two buffer layers in Hsu's examples, one buffer layer being made of PEDT/Nafion® and the other buffer layer being made of PEDT/PSSA, do not meet the limitations of the two-layered composite buffer required by the present claims. Applicant argues that both of Hsu's buffer layers comprise a conductive polymer and a polymeric acid. Applicant argues that the present claims are directed to a single composite buffer comprising two layers, wherein the first layer has a doped conductive polymer and the second layer is either a colloid-forming polymeric acid or salt of a non-polymeric fluorinated organic acid or salt (applicant's emphasis).

The examiner respectfully disagrees.

Hsu et al. use CH8000, described by Hsu as PEDT/PSSA, to make one of the layers. PEDT/PSSA meets the limitations of a doped conductive polymer as required by the present claims. As taught in the present specification, the positive charges of polythiophene are balanced by the negative charge of the dopant. The dopant may be an organic acid anion, and can be

polymeric or non-polymeric. An example of a polymeric organic acid that can be used is poly(styrenesulfonic acid) (PSSA). The combination of the positively charge conductive polymer and the anion is the doped conductive polymer as taught at page 9, lines 21-22 of the specification. Also see the present specification at page 8, line 31-p. 9, l. 20, p. 17, l. 24-25, and Examples 2-6 (pp. 25-27). Examples 2-6 describe devices in which one of the buffer layers is made with PEDT/PSSA.

While both of the buffer layers of Hsu's Examples 11 and 12 comprise PEDT as part of the composition, the composition of the two buffer layers is different as required by the present claims because one layer comprises PSSA in combination with PEDT while the other comprises Nafion® in combination with PEDT, and PSSA and Nafion® are not the same. With respect to applicant's argument that Hsu's two buffer layers do not address the same claim elements "in the same order", the present claims do not explicitly limit the order of the first and second layers within the device structure. Even if the claims were to limit the order of the layers to the order recited, such that the first layer of the buffer layer is positioned between the anode and the second layer of the buffer layer, the device described in Hsu's Example 12 would continue to meet the presently rejected claims because Hsu's Example 12 device comprises, in the order listed: anode, PEDT/PSSA layer, PEDT/ Nafion® layer, active organic material layer (aka electroluminescent layer).

To the extent that applicant's arguments seem to imply that there is some distinction between two buffer layers that are in physical contact with each other, and a composite buffer

layer comprising two layers that are in physical contact with each other, there is no patentable distinction.

To the extent that applicant's argument that the second layer of the present composite buffer "is" either a colloid-forming polymeric acid or salt or a non-polymeric fluorinated organic acid or salt may imply that the composition of the second layer is closed to other components, the present claim language is open. While the first and second layers must each comprise a specified component, and the composition of the two layers must be different, the first and/or the second layer may comprise other non-recited components. PEDT is not excluded from the second layer and Examples 2-4 as set forth on pages 25-26 of the specification describe devices according to the present proposed invention wherein the second layer of the buffer is made from PEDT/ Nafion®.

8. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/
Primary Examiner, Art Unit 1794

MRY
August 15, 2008